

Date: Thursday, 18/09/2008 11:13:32 AM
 User: Julie Lecocq

Process Sheet

Customer :	CU-DAR001 Dart Helicopters Services	Drawing Name :	TUBE ASSEMBLY
Job Number :	42109		
Estimate Number :	10426		
P.O. Number :		Part Number :	D3304044
This Issue :	18/09/2008	Drawing Number :	D3304 REV. B
Prsht Rev. :	NC	Project Number :	N/A
First Issue :	//	Drawing Revision :	B
Previous Run :	40862	Material :	
Written By :		Due Date :	10/10/2008
Checked & Approved By :	JUD 08.9.18	Qty:	4
Comment :	Est: D 04.11.26 Revised Steps 7 KJ/JLM	Um:	Each

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
1.0	M304TR0875W065	304 round tube .875 x .065w
Comment: Qty.: 1.9469 f(s)/Unit Total : 7.7876 f(s) Material: AISI 304/316 SS tubing 0.875" x 0.065" wall (M304TR0.875W.065) Batch: M109007 J.F. 08/09/21 (4)		
2.0	BAND SAW	BAND SAW
Comment: BAND SAW 1- Cut blank: 22.00" as per Dwg D3304 J.F. 08/09/21 (4)		
3.0	LATHE CONV.	CONVENTIONAL LATHE
Comment: COVENTIONAL LATHE 1- Cut blank: 22.00" as per Dwg D3304 2- Turn as per Dwg D3304 3- Deburr J.F. 08/09/21 (4)		
4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
Comment: INSPECT PARTS AS THEY COME OFF MACHINE J.F. 08/09/21 (4)		
5.0	QC8	SECOND CHECK
Comment: SECOND CHECK J.F. 08/09/21 (4)		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 18/09/2008 11:13:32 AM
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Drawing Name: TUBE ASSEMBLY

Job Number: 42109

Part Number: D3304044

Job Number:



Seq. #: Machine Or Operation: Description :

6.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

- 1- Drill as per Dwg D3304 using drill Jig D3304-T1
- 2- Form as per Dwg D3304
- 3- Cut tube to length as per Dwg D3304
- 4- Check with DT8657 JIG
- 4- Deburr

FF 08/10/21

(4)

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 08/10/21

8.0

D33048

Bracket



Comment: Qty.: 1.0000 Each(s)/Unit Total: 4.0000 Each(s):

Bracket

Pick:

Qty Part Number Description Batch
1 D3304-8 Bracket

B40708

EL 8-10-30 x4

9.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Weld bracket as per Dwg D3304 and QSI 004

M107051

EL 8-10-30 x4

10.0

QC9

VISUAL WELDING INSPECTION



08-10-30 (x4)

08/10/31



Comment: VISUAL WELDING INSPECTION

11.0

QC5

INSPECT WORK TO CURRENT STEP



08-10-31 (4)



Comment: INSPECT WORK TO CURRENT STEP

12.0

POWDER COATING

POWDER COATING



M 106442



(4x)

Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

2:30
320 °F
3:00

M-1 08/10/31

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 18/09/2008 11:13:32 AM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TUBE ASSEMBLY

Job Number: 42109

Part Number: D3304044

Job Number:



Seq. #: Machine Or Operation:

Description :

13.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

FF 08/11/03

4

14.0

BLBS0016

PIP PIN



Comment: Qty.: 1.0000 Each(s)/Unit Total: 4.0000 Each(s)

PIP PIN

Pick:

Qty	Part Number	Description
1	BLBS-0016	Pip Pin

Batch

109199

FF 08/11/03

④

15.0

CBL460

Loop Sleeve



Comment: Qty.: 2.0000 Each(s)/Unit Total: 8.0000 Each(s)

Loop Sleeve

Pick:

Qty	Part Number	Description
2	CBL-460	Loop Sleeve

Batch

109062

FF 08/11/03

④

16.0

CBL1240

Cable



Comment: Qty.: 1.0416 f(s)/Unit Total: 4.1664 f(s)

Cable

Pick:

Qty	Part Number	Description
12.5"	CBL-1240	Cable

Batch

1107234

FF 08/11/03

④

17.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble lanyard and pip pin as per Dwg D3304

Identify as D3304-044

FF 08/01/17

4

18.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

08-11-03 ④

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Drawing Name: TUBE ASSEMBLY

Job Number: 42109

Part Number: D3304044

Job Number:



Seq. #:

Machine Or Operation:

Description :

19.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify with P/N and B/N as per Dwg using a permanent fine point marker, then Stock

Location: ST 188

JS 08/11/04

20.0

QC21

FINAL INSPECTION/W/O RELEASE



08/11/05

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



CMF 08-11-04

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector



Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DESIGN	RF	DRAWN BY	RF	DART AEROSPACE LTD HAMKESBURY, ONTARIO, CANADA	
CHECKED		APPROVED		DRAWING NO.	REV. B
DATE	05.07.15	TITLE	TUBE ASSEMBLY	D3304	SHEET 1 OF 4
A	04.08.18	NEW ISSUE	UPDATE DIMENSIONS; ADD D3304-7/-8		
B	05.07.15				



D3304-044 TUBE ASSEMBLY (SHOWN)
D3304-043 OPPOSITE

03304-041/-043/-044 NOTES:

- 1) FINISH: POWDER COAT GREY SANDETEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- 2) WELD PER DART QSI 004
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

ALL DIMENSIONS ARE IN INCHES

BREAK ALL SHARP EDGES 0.005 TO 0.015

IDENTIFY AS INDICATED USING FINE POINT PERMANENT INK MARKER "TCCA-PDA, DART
AEROSPACE LTD, P/N D3304-XXX B/N BXXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA04-11"

BEING ASSEMBLED WITH D3303-041, ADD THE FOLLOWING USING A FINE POINT PERMANENT INK MARKER: "TCCA-PDA, DART AEROSPACE LTD, P/N D412-724-XXX B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA04-11"

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JUL 11 1955

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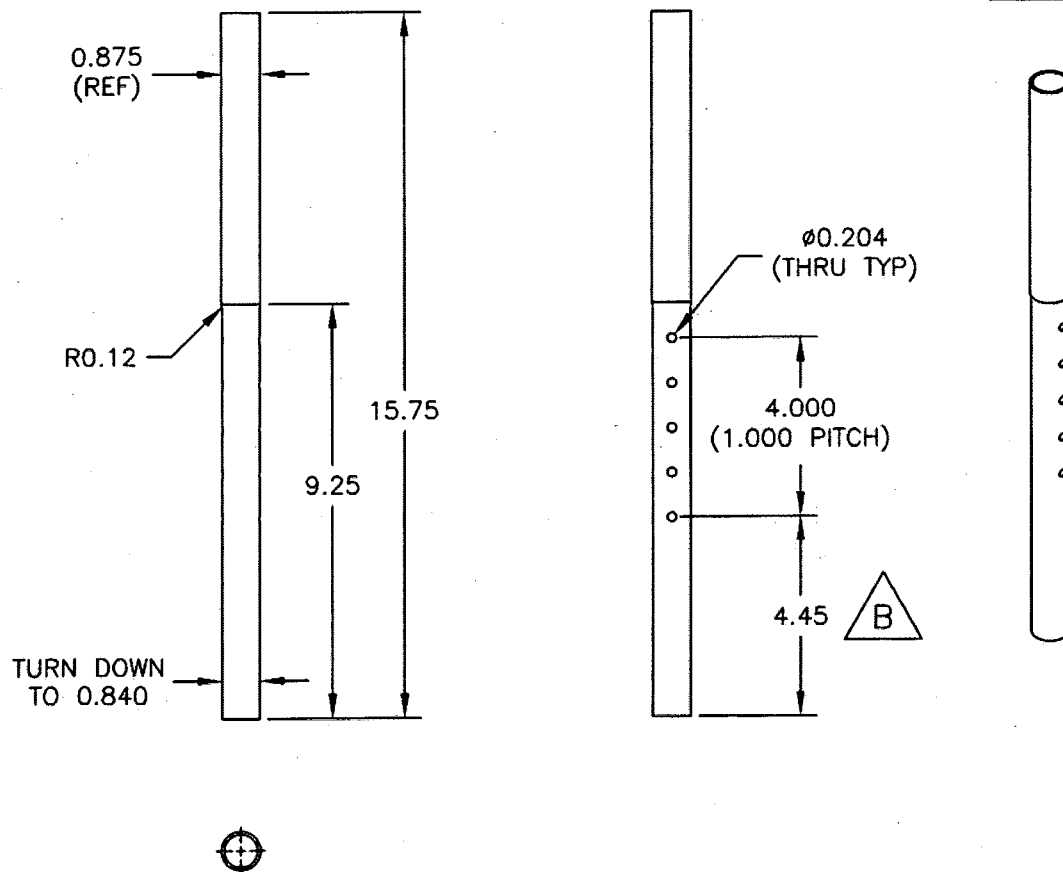
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ENGINEERING



DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED 	APPROVED 	DRAWING NO. D3304	REV. B SHEET 2 OF 4
DATE 05.07.15		TITLE TUBE ASSEMBLY	SCALE 1:4

RELEASED
05.08.11



D3304-1 TUBE

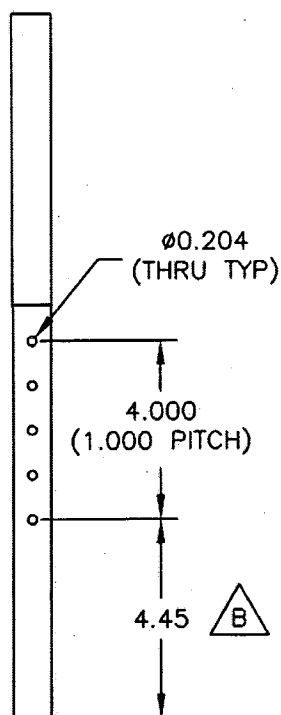
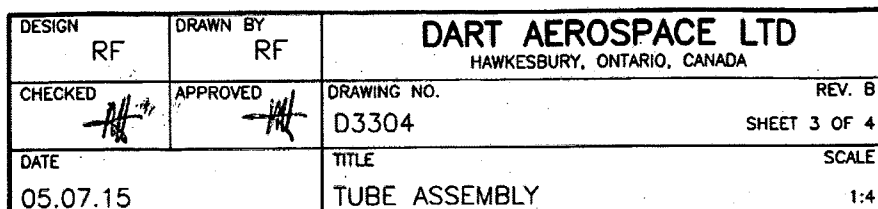
D3304-1 NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL TUBE $\phi 0.875 \times 0.065$ WALL
(REF. DART SPEC M304TR0.875W.065) ENSURE SEAMLESS TUBE IS USED
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015

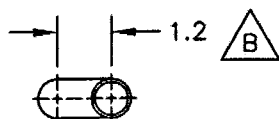
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D3304-3 NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL TUBE $\phi 0.875 \times 0.065$ WALL
(REF. DART SPEC M304TR0.875W.065) ENSURE SEAMLESS TUBE IS USED
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) BEND LINES 9.625, 13.375 DIMENSIONS

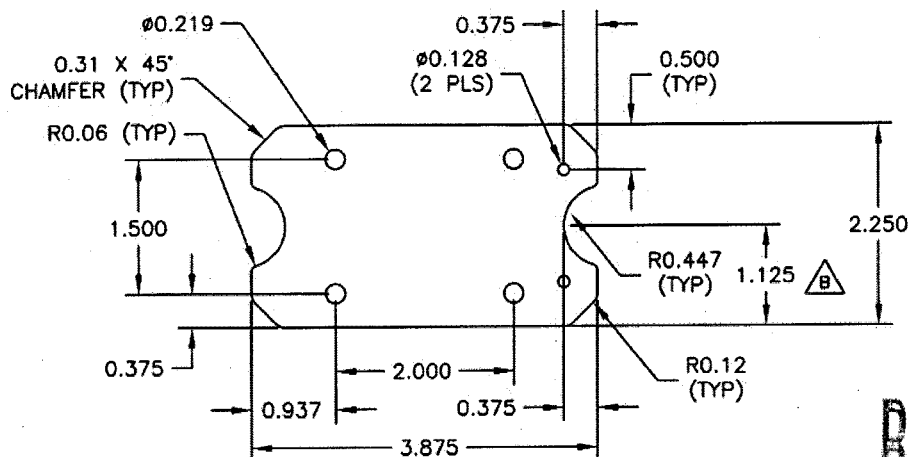
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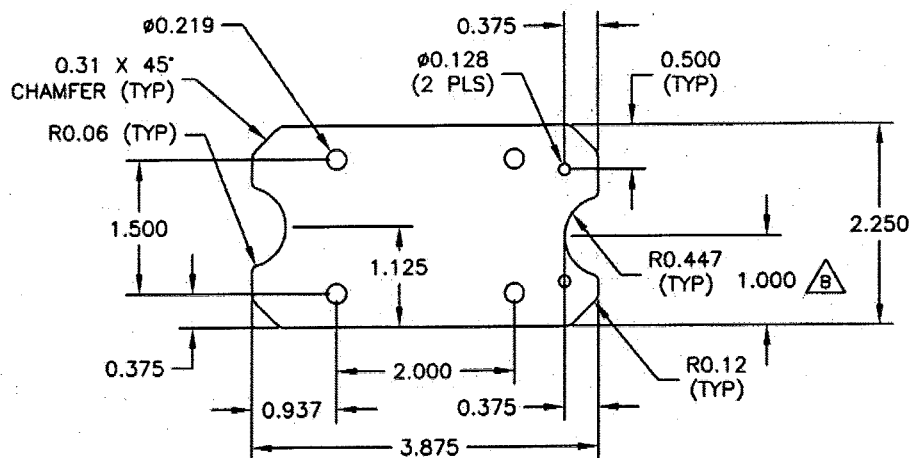


DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED 	APPROVED 	DRAWING NO. D3304	REV. B SHEET 4 OF 4
DATE 05.07.15	TITLE TUBE ASSEMBLY		SCALE 1:2

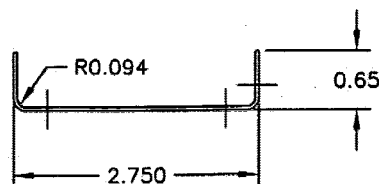


D3304-5 FLAT PATTERN

RELEASED
05.08.11



D3304-7/-8 FLAT PATTERN



D3304-5/-7 BRACKET
D3304-8 OPPOSITE

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NO. 42107

NOTES:

- 1) MATERIAL: AISI 304/316 SS 0.040 THICK SHEET (REF. DART SPEC M304S20GA)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015

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